



True Translation of PCT/EP2005/001764 claims as amended on May 4, 2006

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Claims

1. Slide bearing composite material comprising a metallic support layer and a metallic, lead-free, porous carrier layer sintered thereon, for receiving a sliding layer material on a polymer basis, wherein the carrier layer is formed from tin bronze with bismuth additives, characterized in that the carrier layer is formed from a tin-bronze sintering powder consisting essentially of 9.5 to 11 weight % of tin, 7 to 13 weight % of bismuth, 0 - 4.0 weight % zinc, the rest copper and impurities, wherein the powder particles have a bulbous shape deviating from a regular spherical shape, but without edges and undercuts and having a length/width ratio of approximately 1.5 - 3, the carrier layer having a pore volume of 28 to 45 %.
2. Slide bearing material according to claim 1, characterized in that the carrier layer has a pore volume of 30 to 40 %.
3. Slide bearing composite material according to claim 1 or 2, characterized in that the grain size distribution of the metallic particles comprises a characteristic grain size of 100 to 150 μm , in particular of 110 to 130 μm .
4. Slide bearing composite material according to claim 1, 2 or 3, characterized in that the grain size distribution of the metallic particles is characterized by a shape parameter β of 6 to 200.
5. Slide bearing composite material according to any one or more of the preceding claims, characterized in that the powder particles comprise 7 to 11 weight % of bismuth.

6. Slide bearing material according to claim 5, characterized in that the powder particles comprise 7.5 to 10 weight % of bismuth.
7. Slide bearing material according to any one or more of the preceding claims, characterized in that the powder particles comprise 9.5 to 10.5 weight % of tin.
8. Slide bearing material according to any one or more of the preceding claims, characterized in that the slide bearing material comprises PTFE as a polymer basis.
9. Slide bearing material according to any one or more of the preceding claims, characterized in that the slide bearing material comprises PVDF and/or PEEK as a polymer basis.
10. Slide bearing material according to any one or more of the preceding claims, characterized in that the slide bearing material comprises additional fillers.
11. Slide bearing bushing produced from a slide bearing composite material according to any one or more of the preceding claims.